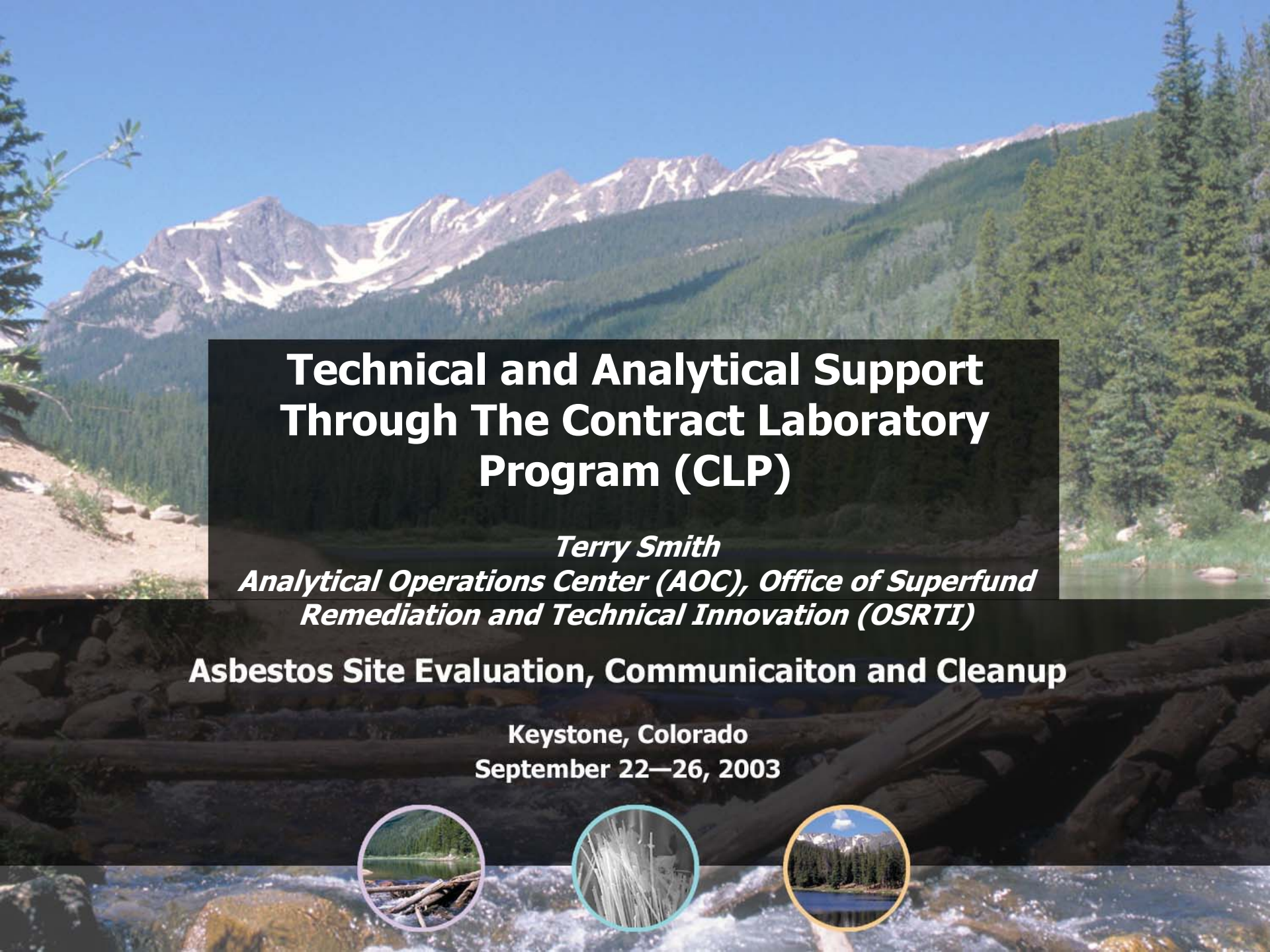

Technical and Analytical Support Through The Contract Laboratory Program (CLP)

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Asbestos Site Evaluation, Communicaiton and Cleanup

Keystone, Colorado
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Technical and Analytical Support Through The Contract Laboratory Program (CLP)

- Purpose of CLP:
  - To provide Regional Superfund community with laboratory services offering timely, accurate and DEFENSIBLE analytical data
  - To provide technical support and services for methodology, PE sampling, and audits
- CLP is operated out of the Analytical Operations Center within the Office of Superfund Remediation and Technical innovation (OSRTI)



Technical and Analytical Support Through The Contract Laboratory Program (CLP)

- Since January 2001, AOC with its QATS contractor (Shaw Engineering) has performed on-site audits of 16 asbestos testing laboratories throughout U.S.
- Original purpose of audits was to ensure sufficient “qualified” laboratory services for Libby related activities
- Purpose expanded on 9/11 to provide qualified analytical services for World Trade Center Activities



Technical and Analytical Support Through The Contract Laboratory Program (CLP)

- Eight laboratories related to Libby activities:
  - Clayton: Atlanta
  - DataChem: Cincinnati
  - EMS: Los Angeles
  - Hygeria: Los Angeles
  - Forensic: Hayward, CA
  - KAM: Queens, NY
  - EMSL: Westmont, NJ
  - EMSL: on-site laboratory, Libby



Technical and Analytical Support Through The Contract Laboratory Program (CLP)

- Five laboratories related to WTC activities
  - EMSL: Manhattan
  - Scientific Laboratories: Manhattan
  - ATC: Manhattan
  - Enviroscience Consultants: Long Island, NY
  - Eastern Analytical: Elmsford, NY



Technical and Analytical Support Through The Contract Laboratory Program (CLP)

- Three labs audited as special requests
  - Reservoir Environmental Services: Denver
  - Materials Analytical Services: Suwanee, GA
  - R.J. Lee: San Leandro, CA

Technical and Analytical Support Through The Contract Laboratory Program (CLP)

Summary of Audit Findings

- For the most part, all labs audited have capable staff (? for one)
- All labs suffer somewhat in deficiencies in documentation
  - Internal sample tracking relatively poor for many labs
  - Sample log-in and COC SOPs are many times not current and are not followed by lab personnel



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Summary of Audit Findings (cont.)

- Most labs had some variation in their analytical techniques vs. what was written in their SOPs, or more importantly what is written in the formal analytical method (e.g. AHERA, NIOSH 7400, etc)
  - Number of slide preparations required, frequency of duplicate analysis, calibration of refractive index oils, calibration of equipment, etc. All are short-cutting activities



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Summary of Audit Findings (cont.)

- One lab made major modifications (from formal method) to analytical sample preparation techniques without making any documentation notes to SOP, or anywhere else
- In some cases, SOPs were not immediately available to analysts
- One lab's SOP was a flat-out lie from their true capabilities.



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Summary of Audit Findings (cont.)

- Failures in method required Quality Assurance Procedures
  - Duplicate analyses not being performed at required method defined frequency
  - Method defined reference sample/slide analysis not being performed “blind” to the analyst
  - **** QA failures not reported on a timely basis



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Summary of Audit Findings (cont.)

- Many labs demonstrated lack of building and database security
- Some labs showed inadequate data review procedures (errors observed in transcribing results from bench sheet to final report)
- Many labs demonstrated poor internal safety procedures (e.g. opening sample containers on top of personal desk and not in a ventilated hood)
- A couple of labs were very dirty
- Some labs exaggerated their capacity



Technical and Analytical Support Through The Contract Laboratory Program (CLP)

Recommendations

- Prepare and discuss QAP with laboratory
  - Include specific Methodology and SOP discussion in QAP
  - Review lab's SOPs before beginning analyses
  - Determine sensitivity requirements and means to achieve required sensitivity
  - Discuss requirements for overloading



Technical and Analytical Support Through The Contract Laboratory Program (CLP)

Recommendations (cont.)

- Require expanded data deliverable from Lab – not just final results
  - Require copies of all sample count and bench sheets
  - Require results of all internal duplicate analyses
  - Require results of all internal reference analyses
  - Require copies of all pertinent SOPs
- Perform on-site audit
- Incorporate PE samples into sample flow



Technical and Analytical Support Through The Contract Laboratory Program (CLP)

Recommendations (cont.)

- Review sampling activities – Not all problems are laboratory problems
  - Improper collection of air samples (COC information doesn't make logistic sense)
  - Check for appropriate number of field blanks, etc
- Ask for appropriate Methodology
- Ensure laboratory capacity



Technical and Analytical Support Through The Contract Laboratory Program (CLP)

Future Role of CLP

- **Audit team is current available**
- **PE samples are available for TEM air analysis– more PE services will be made available in 2004**
- **Formal program where CLP will provide:**
  - SOW containing up-to-date methodology (air, bulk, dust, soil, vermiculite ?): Will be taken out of Regulatory framework
  - Requirements for QA and Data Reporting
  - Contractual language and flexibility
  - Sample and data tracking services
  - Data validation services
  - Free services (maybe ?)